AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for ensuring a storage time for digital broadcast at the time of storing broadcast data for a digitized and then transmitted broadcast transmitted in a state of being digitized and compressed, comprising the steps of:

monitoring a predetermined recording time for the broadcast and a bit-rate of the broadcast in the compressed state and calculating, in real time, a required capacity of a storage medium;

determining whether or not said calculated required capacity of the storage medium can be contained within an empty area or a freely limited area of the storage medium;

if said calculated required capacity of the storage medium cannot be contained as the result of said determination, converting, in real time, said bit-rate of the broadcast into a smaller one by decoding and then re-compressing the broadcast data in the compressed state; and

storing said converted broadcast in said storage medium.

2. (Original) The method for ensuring a storage time for digital broadcast of claim 1 further comprising the steps of:

if said calculated required capacity of the storage medium can be contained as the result of said determination, determining whether or not said empty area or freely limited area of the storage medium remains;

if said empty area or freely limited area remains, converting, in real time, said bit-rate of the broadcast into a larger one; and

storing said converted broadcast into said storage medium.

3. (Original) The method for ensuring a storage time for digital broadcast of claim 1 further comprising the step of:

if said calculated required capacity of the storage medium can be contained as the result of said determination, storing said broadcast in said storage medium without converting the bit-rate.

4. (Original) The method for ensuring a storage time for digital broadcast of claim 1, wherein said step of converting said bit-rate of the digitized broadcast into a smaller one is an operation of missing a part of said broadcast data.

5. (Original) The method for ensuring a storage time for digital broadcast of claim 1, wherein said step of converting said bit-rate of the digitized broadcast into a smaller one is an operation of returning said broadcast in a baseband and performing a compression processing again for the broadcast.

6. (Original) The method for ensuring a storage time for digital broadcast of claim 5, wherein said operation of returning said broadcast in a baseband and performing a compression processing again for the broadcast is performed by utilizing a system for compressing an analog broadcast, decoding the compressed digital data and then playing back the resultant data.

7. (Original) The method for ensuring a storage time for digital broadcast of claim 5, wherein said step of converting said bit-rate of the digitized broadcast into a smaller one is an operation of returning said broadcast in a baseband, then performing image resolution conversion or image frame rate conversion upon the broadcast and performing the compression processing again upon the resultant broadcast.

8. (Original) The method for ensuring a storage time for digital broadcast of claim 1, wherein said step of converting said bit-rate of the digitized broadcast into a smaller one is performed by selecting one from three kinds of operations, i.e., the operation of missing a part of the broadcast data, the operation of returning the broadcast in a baseband and performing a compression processing again upon the broadcast and the operation of returning the broadcast in a baseband, then performing image resolution conversion or image frame rate conversion upon the broadcast and performing the compression processing again upon the resultant broadcast.

9. (Original) The method for ensuring a storage time for digital broadcast of claim 1 further comprising the step of:

if said calculated required capacity of the storage medium cannot be contained, deleting a broadcast which has been already stored in said storage medium to ensure the required capacity of the storage medium.

10. (Original) The method for ensuring a storage time for digital broadcast of claim 1 further comprising the step of:

if said calculated required capacity of the storage medium cannot be contained, re-compressing said broadcast which has been already stored in the storage medium to ensure the required capacity of the storage medium.

11. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein said step of re-compressing said broadcast which has been already stored in the storage medium is performed by the operation of missing a part of the stored broadcast data, the operation of returning the stored broadcast in a baseband and performing a compression processing again upon the broadcast or the operation of returning said stored broadcast in a baseband, then performing image resolution conversion or image frame rate conversion and performing a compression processing again upon the broadcast.

12. (Original) The method for ensuring a storage time for digital broadcast of claim 9, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast that a set period of time or longer has passed since its storage will be deleted.

13. (Original) The method for ensuring a storage time for digital broadcast of claim 9, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which has been decoded at least once since its storage will be deleted.

14. (Original) The method for ensuring a storage time for digital broadcast of claim 9, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which is stored in the storage medium and then copied in other storage medium will be deleted.

15. (Original) The method for ensuring a storage time for digital broadcast of claim 9, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which was stored at the earliest date will be deleted.

16. (Original) The method for ensuring a storage time for digital broadcast of claim 9, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast that a set period of time or longer has passed since its storage, a broadcast which has been decoded at least once since its storage, a broadcast which is stored in the storage medium and then copied in other storage medium or a broadcast which was stored at the earliest date will be deleted, and these broadcasts are selected in accordance with a predetermined priority.

17. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast that a set period of time or longer has passed since its storage will be re-compressed.

18. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which has been decoded at least once since its storage will be re-compressed.

19. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which is stored in the storage medium and then copied in other storage medium will be re-compressed.

20. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast which was stored at the earliest date will be re-compressed.

21. (Original) The method for ensuring a storage time for digital broadcast of claim 10, wherein when a plurality of already stored broadcasts exist in the storage medium, a broadcast that a set period of time or longer has passed since its storage, a broadcast which has been decoded at least once since its storage, a broadcast which is stored in the storage medium and then copied in other storage medium or a broadcast which was stored at the earliest date will be re-compressed, and these broadcasts are selected in accordance with a predetermined priority.

22. (Currently Amended) A device for ensuring a storage time for digital broadcast at the time of storing a digitized and then transmitted broadcast data transmitted in a state of being digitized and compressed comprising:

a required capacity calculation circuit for monitoring a predetermined recording time of the broadcast and a bit-rate of the broadcast in the compressed state and calculating, in real time, a required capacity of the storage medium;

a determination circuit for determining whether or not the required capacity of the storage medium calculated in said required capacity calculation circuit can be contained within an empty or freely limited area in the storage medium; and

a bit-rate conversion circuit for, if said calculated required capacity of the storage medium cannot be contained as the result of said determination by said determination circuit, converting, in real time, said bit-rate of the broadcast into a smaller one by decoding and then re-compressing the broadcast data in the compressed state and storing the converted broadcast in said storage medium.

23. (Original) The device for ensuring a storage time for digital broadcast of claim 22, wherein said determination circuit further determines, if said calculated required capacity of the storage medium can be contained, whether or not said empty or freely limited area of the storage medium remains, and said device further comprising:

a second bit-rate changing circuit for, if the empty or freely limited area remains as the result of said determination by said determination circuit, converting, in real time, said bit-rate of the broadcast into a larger one and storing the converted broadcast in said storage medium.

24. (Original) The device for ensuring a storage time for digital broadcast of claim 22, wherein said required capacity calculation circuit comprising:

a determination circuit for writing an inputted broadcast stream in a storage memory and determining said bit-rate of the broadcast on the basis of its storage time and storage amount.

25. (Original) The device for ensuring a storage time for digital broadcast of claim 22 further comprising:

a deletion circuit for, if said calculated required capacity of the storage medium cannot, be contained as the result of determination by said determination circuit, deleting a broadcast which has been already stored in the storage medium.

26. (Original) The device for ensuring a storage time for digital broadcast of claim 22 further comprising:

a re-compression circuit for, if said calculated required capacity of the storage medium cannot be contained as the result of determination by said determination circuit, re-compressing a broadcast which has been already stored in the storage medium.

27. (Original) The device for ensuring a storage time for digital broadcast of claim 22, wherein said required capacity calculation circuit, said determination circuit and said bit-rate conversion circuit are integrated onto a chip.

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